Diabatic Compressed Air Energy Storage

Your challenges
- Absorbing renewable energy that might otherwise be curtailed
- Long duration energy storage for supporting load management
- Balancing load with new mix of generating assets and end client expectations
- Regulatory requirements of black-start capabilities, resulting in bound capital and resources

Our storage systems enable
- Energy and ancillary services with low fuel consumption
- Increased grid capacity utilization, balancing and reserve services
- High flexible operating modes, including simultaneous charging and discharging
- Excellent load-following capacity and part-load efficiency
- Decarbonization by high utilization of renewable energy sources

Our offerings
- Entire surface plant scope including CAES cycle, balance of plant, and construction
- Future-ready design: Further CO₂ reduction via co-firing with Hz based fuels
- GWh-scale energy storage solution
- Proven components coupling together for unlocking a new market

Typical properties
- Power range: 140–160 MWₐ
- Discharge time: 8–24 hours
- Reaction time: 10–15 min
- Storage size: > 4.000 MWhₑ
- Storage period: Multiple days

Benefits
- Efficiency: low, high
- Availability: low, high
- Flexibility: low, high
- CO₂ reduction: low, high

* Power range is per expansion train